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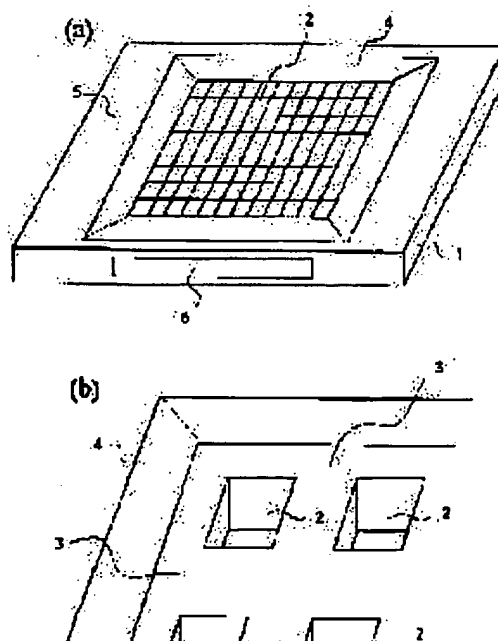
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(54) POLYNUCLEOTIDE PROBE CHIP AND POLYNUCLEOTIDE DETECTION

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a polynucleotide probe chip that holds a many kinds of DNA probes and is useful for detecting a plurality of DNAs.

SOLUTION: A polynucleotide probe set comprising a gel precursor having reactive residual groups and a plurality of polynucleotide probes having the residual groups linking to the reactive residue are preliminarily prepared. Arbitrary polynucleotide probes selected from the probe set are combined with individually corresponding gel precursors and the combinations are placed in different small wells 2 on the polynucleotide probe chip 1 and converted to gel. The DNA specimens are forcibly moved by the electrophoresis in the gel. Then, a laser is irradiated from the side face 6 of the chip and the fluorescent light emitted from the whole face of the chips are collectively detected with a high-sensitivity



second-dimensional detector. Thus, the DNAs can be detected rapidly in high sensitivity with high hybridization efficiency.

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